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 Applicant  
 Scott, Matthew P. et al.

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**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
					YES	NO

**OTHER DOCUMENTS**

(Including Author, Title, Date, Pertinent Pages, Etc.)

PS	AA	Burke, R., and Basler K., "Hedgehog signaling in Drosophila eye and limb development-conserved machinery, divergent roles?", Curr. Opin. Neurobiol., 7(1): 55-61 (1997).
	AB	Buscher, D. et al., "Evidence for Genetic Control of Sonic Hedgehog by Gli3 in Mouse Limb Development", Mech. Dev., 62 (2):175-182 (1997).
	AC	Forbes et al., "Genetic analysis of hedgehog signalling in the Drosophila embryo", Development 1993 Supplement pp. 115- 124 (1993).
	AD	Hidalgo Alicia, "Interaction between segment polarity genes and the generation of the segmental pattern in Drosophila", Mechanisms of Development 35 :77-87 (1991).
	AE	Hidalgo Alicia, "Three distinct roles for the engrailed gene in Drosophila wing development", Current Biology 4(12) : 1087-1098 (1994).
	AF	Platt A. K. et al., "Expression of the mouse Gli and Ptc genes is adjacent to embryonic sources of hedgehog signals suggesting a conservation of pathways between flies and mice", Mechanisms of Development 62:121-135 (1997).
	AG	Sampedro J. and Guerrero I., "Unrestricted expression of the Drosophila gene patched allows a normal segment polarity", Nature 353 : 187-190 (12 Sept. 1991).
	AH	Sánchez- Herrero et al., "The fu gene discriminates between pathways to control dpp expression in Drosophila imaginal discs", Mechanisms of Development 55: 159- 170 (1996).
	AI	Scott P. Matthew, " Hox genes Arms and the Man", Nature Genetics 15: 117-118 ( February 1997).
	AJ	Strutt I. David and Mlodzik Marek, " The regulation of hedgehog and decapentaplegic during Drosophila eye imaginal disc development", Mechanisms of Development 58: 39- 50 (1996).
	AK	Taylor et al., " Contrasting distributions of patched and hedgehog proteins in the Drosophila embryo", Mechanisms of Development 42:89- 96 (1993).
PS	AL	Weed et al., " The Role of Sonic Hedgehog in Vertebrate Development", Matrix Biology 16 : 53- 58 (1997).

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LIST OF PUBLICATIONS CITED BY APPLICANT (Use several sheets if necessary)		APPLICANT Matthew P. Scott et al.	
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## U.S. PATENT DOCUMENTS

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## FOREIGN PATENT DOCUMENTS

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	AG						
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PS	AJ	✓	Gailani, M. and Bale, A., "Developmental genes and cancer: role of patched in basal cell carcinoma of the skin", <i>J. Natl. Cancer Inst.</i> , <b>89</b> (15): 1103-1109 (1997)
	AK	✓	Sisson, J. et al., "Costal2, a novel kinesin-related protein in the Hedgehog signaling pathway", <i>Cell</i> , <b>90</b> (2): 235-245 (1997)
	AL	✓	Vorechovsky, I. et al., "Somatic mutations in the human homologue of Drosophila patched in primitive neuroectodermal tumors", <i>Oncogene</i> , <b>15</b> (3): 361-366 (1997)
	AM	✓	Loftus, S., et al., "Murine model of Niemann-Pick C disease: mutation in a cholesterol homeostatis gene", <i>Science</i> , <b>277</b> (5323): 232-235 (1997)
	AN	✓	Struhl, G. et al., "Hedgehog acts by distinct gradient and signal relay mechanisms to organize cell type and cell polarity in the Drosophila abdomen", <i>Development</i> , <b>124</b> (11): 2155-2165 (1997)
	AO	✓	Bale, A., "Variable expressivity of patched mutations in flies and humans", <i>Am. J. Human Genet.</i> , <b>60</b> (1): 10-12 (1997)
	AP	✓	Chen, E. and Baker, B., "Compartmental organization of the Drosophila genital imaginal disks", <i>Development</i> , <b>124</b> (1): 205-218 (1997)
PS	AQ	✓	Jensen, A. and Wallace, V., "Expression of Sonic hedgehog and its putative role as a precursor cell mitogen in the developing mouse retina", <i>Development</i> , <b>124</b> (2): 363-371 (1997)
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P. J. Schi		9/6/94	
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## OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

PS	AR	✓	Hepker, J. et al., "Drosophila cubitus interruptus forms a negative feedback loop with patched and regulates expression of Hedgehog target genes", <i>Development</i> , 124 (2): 549-558 (1997)
I	AS	✓	Nakamura, T. et al., "Induction of osteogenic differentiation by hedgehog proteins", <i>Biochem. Biophys. Res. Comm.</i> , 237 (2): 465-469 (1997)
	AT	✓	Grindley, J. et al., "Evidence for the involvement of the Gli gene family in embryonic mouse lung development", <i>Dev. Biol.</i> , 188 (2): 337-348 (1997)
	AU	✓	Alcedo, J. And Noll, M., "Hedgehog and its patched-smoothened receptor complex: a novel signalling mechanism at the cell surface", <i>Biol. Chem.</i> , 378 (7): 583-590 (1997)
	AV	✓	Hynes, M. et al., "Control of cell pattern in the neural tube by zinc finger transcription factor and oncogene Gli-1", <i>Neuron</i> , 19 (1): 15-26 (1997)
	AW	✓	Takabatae, T. et al., "Hedgehog and patched gene expression in adult ocular tissues", <i>FEBS Letters</i> , 410 (2-3): 485-489 (1997)
	AX	✓	Akiyama, H. et al., "Cloning of a mouse smoothened cDNA and expression patterns of hedgehog signaling molecules during chondrogenesis and cartilage differentiation in conal mouse EC cells, ATDC5", <i>Biophys. Res. Comm.</i> , 235 (1): 142-147 (1997)
	AY	✓	Oro, A. et al., "Basal cell carcinomas in mice overexpressing sonic hedgehog", <i>Science</i> , 276(5313): 817-821 (1997)
	AZ	✓	Bhat, K. and Schedl, P., "Requirement for engrailed and invected genes reveals novel regulatory interactions between engrailed/invected, patched, gooseberry and wingless during Drosophila neurogenesis", <i>Development</i> , 124 (9): 1675-1688 (1997)
	BA	✓	Akimaru, H. et al., "Drosophila CBP is a co-activator of cubitus interruptus in hedgehog signalling", <i>Nature</i> , 386 (6626): 735-738 (1997)
	BB	✓	Eppe, J. et al., "Oroshigane, a new segment polarity gene of Drosophila melanogaster, functions in hedgehog signal transduction", <i>Genetics</i> , 145 (4): 1041-1052 (1997)
	BC	✓	Von Ohlen, T. et al., "Hedgehog signaling regulates transcription through cubitus interruptus, a sequence-specific DNA binding protein", <i>Proc. Natl. Acad. Sci. USA</i> , 94 (6): 2404-2409 (1997)
	BD	✓	Rogers, G. et al., "Patched gene mutation screening in patients with basal cell nevus syndrome using bi-directional dideoxy fingerprinting", <i>J. Invest. Dermatol. Abstracts</i> , 108(4): 598, # 364, (1997)
	BE	✓	Bellusci, S. et al., "Involvement of Sonic hedgehog (Shh) in mouse embryonic lung growth and morphogenesis", <i>Development</i> , 124 (1): 53-63 (1997)
	BF	✓	Stone, D. et al., "The tumor-suppressor gene patched encodes a candidate receptor for Sonic hedgehog", <i>Nature</i> , 384 (6605): 129-134 (1996)
	BG	✓	Marigo, V. et al., "Biochemical evidence that patched is the Hedgehog receptor", <i>Nature</i> , 384 (6605): 176-179 (1996)
	BH	✓	Chen, Y. and Struhl, G. "Dual roles for patched in sequestering and transducing Hedgehog", <i>Cell</i> , 87 (3): 553-563 (1996)
	BI	✓	Forbes, A. et al., "The role of segment polarity genes during early oogenesis in Drosophila", <i>Development</i> , 122 (10): 33283-3294 (1996)
	BJ	✓	Marigo, V. and Tabin, C., "Regulation of patched by sonic hedgehog in the developing neural tube", <i>Proc. Natl. Acad. Sci. USA</i> , 93 (18): 9346-9351 (1996)
	BK	✓	Epstein, D. et al., "Antagonizing cAMP-dependent protein kinase A in the dorsal CNS activates a conserved Sonic hedgehog signaling pathway", <i>Development</i> , 122 (9): 2885-2894 (1996)
PS	BL	✓	Alexandre, C. et al., "Transcriptional activation of hedgehog target genes in Drosophila is mediated directly by the cubitus interruptus protein, a member of the GLI family of zinc finger DNA-binding proteins", <i>Genes Dev.</i> , 10 (16): 2003-2013 (1996)
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Richard Schaefer		9/6/99	
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PS	BM	Vortkamp, A. et al., "Regulation of rate of cartilage differentiation by Indian hedgehog and PTH-related protein", <i>Science</i> , 273 (5275): 613-622 (1996)
	BN	Goodrich, L. et al., "Conservation of the hedgehog/patched signaling pathway from flies to mice: induction of a mouse patched gene by Hedgehog", <i>Genes Dev.</i> , 10 (3): 301-312 (1996)
	BO	Marigo, V. et al., "Sonic hedgehog differentially regulates expression of GLI and GLI3 during limb development", <i>Dev. Biol.</i> , 180 (1): 273-283 (1996)
	BP	Roush, W., "Hedgehog's patterning call is patched through, smoothly", <i>Science</i> , 274 (5291): 1304-1305 (1996)
	BQ	Gomez-Skarmeta, J. and Modolell, J., "Araucan and caupolican provide a link between compartment subdivisions and patterning of sensory organs and veins in the Drosophila wing", <i>Genes Dev.</i> , 10 (22): 2935-1945 (1996)
	BR	Nusse, R. "Patching up Hedgehog", <i>Nature</i> , 384 (6605): 119-120 (1996)
	BS	Concordet, J. et al., "Spatial regulation of a zebrafish patched homologue reflects the roles of sonic hedgehog and protein kinase A in neural tube and somite patterning", <i>Development</i> , 122 (9): 2835-2846 (1996)
	BT	Gailani, M. et al., "The role of the human homologue of Drosophila patched in sporadic basal cell carcinomas", <i>Nat. Genet.</i> , 14 (1): 78-81 (1996)
	BU	Perrimon, N., "Serpentine proteins litter into the wingless and hedgehog fields", <i>Cell</i> , 86 (4): 513-516 (1996)
	BV	Alcedo, J. et al., "The Drosophila smoothened gene encodes a seven-pass membrane protein, a putative receptor for the hedgehog signal", <i>Cell</i> , 86 (2): 221-232 (1996)
	BW	Shilo, B., "Tumor suppressors. Dispatches from patched", <i>Nature</i> , 382 (6587): 115-116 (1996)
	BX	Pennisi, E., "Gene linked to commonest cancer", <i>Science</i> , 272 (5268): 1583-1584 (1996)
	BY	Dominguez, M. et al., "Sending and receiving the hedgehog signal: control by the Drosophila Gli protein cubitus interruptus", <i>Science</i> , 272 (5268): 1621-1625 (1996)
	BZ	Johnson, R. et al., "Human homolog of patched, a candidate gene for the basal cell nevus syndrome", <i>Science</i> , 272 (5268): 1668-1671 (1996)
	CA	Hahn, H. et al., "A mammalian patched homolog is expressed in target tissues of sonic hedgehog and maps to a region associated with development abnormalities", <i>J. Biol. Chem.</i> , 271 (21): 12125-12128 (1996)
	CB	Bokor, P. and DiNardo, S., "The roles of hedgehog, wingless and lines in patterning the dorsal epidermis in Drosophila", <i>Development</i> , 122 (4): 1083-1092 (1996)
	CC	Marigo, V. et al., "Conservation in hedgehog signaling: induction of a chicken patched homolog by Sonic hedgehog in the developing limb", <i>Development</i> , 122 (4): 1225-1233 (1996)
	CD	Bitgood, M. et al., "Sertoli cell signaling by Desert hedgehog regulates the male germline", <i>Curr. Biol.</i> , 6 (3): 298-304 (1996)
	CE	Chanut, F. and Heberlein, U., "Role of the morphogenetic furrow in establishing polarity in the Drosophila eye", <i>Development</i> , 121 (12): 4085-1094 (1995)
	CF	Johnson, R. et al., "Patched overexpression alters wing disc size and pattern: transcriptional and post-transcriptional effects on hedgehog targets", <i>Development</i> , 121 (12): 4161-4170 (1995)
	CG	Strutt, D. and Mlodzik, M. "Ommatidial polarity in the Drosophila eye is determined by the direction of furrow progression and local interactions", <i>Development</i> , 121 (12): 4247-4256 (1995)
	CH	Ma, C. and Moses, K., "Wingless and patched are negative regulators of the morphogenetic furrow and can effect tissue polarity in the developing Drosophila compound eye", <i>Development</i> , 121 (8): 2279-2289 (1995)
	CI	Kalderon, D., "Morphogenetic signalling. Responses to hedgehog", <i>Curr. Biol.</i> , 5 (6): 2279-2289 (1995)
PS	CJ	Ingham, P. and Fietz, M., "Quantitative effects of hedgehog and decapentaplegic activity on the patterning of the Drosophila wing", <i>Curr. Biol.</i> , 5 (4): 432-440 (1995)
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TS	CK	Jiang, J. and Struhl, G., "Protein kinase A and hedgehog signaling in Drosophila limb development", <i>Cell</i> , 80 (4): 563-572 (1995)
1	CL	Strutt, D. et al., "Regulation of furrow progression in the Drosophila eye by cAMP-dependent protein kinase A", <i>Nature</i> , 373 (6516): 705-709 (1995)
	CM	Habuchi, et al., "Detailed deletion mapping of chromosome 9q bladder cancer: evidence of two tumour suppressor loci", <i>Oncogene</i> , 11: 1671-1674 (1995)
	CN	Li, W., et al., "Function of protein kinase A in hedgehog signal transduction and Drosophila imaginal disc development", <i>Cell</i> , 80 (4): 553-562 (1995)
	CO	Lepage, T. et al., "Signal transduction by cAMP-dependent protein kinase A in Drosophila limb patterning", <i>Nature</i> , 373 (6516): 711-715 (1995)
	CP	Sanicola, M. et al., "Drawing a stripe in Drosophila imaginal disks: negative regulation of decapentaplegic and patched expression by engrailed", <i>Genetics</i> , 139 (2): 745-756 (1995)
	CQ	Schuske, K. et al., "Patched overexpression causes loss of wingless expression in Drosophila embryos", <i>Dev. Biol.</i> , 164 (1): 300-301 (1994)
	CR	Cadigan, K. et al., "Localized expression of sloppy paired protein maintains the polarity of Drosophila parasegments", <i>Genes Dev.</i> , 8 (8): 899-913 (1994)
	CS	Kojima, T. et al., "Induction of a mirror-image duplication of anterior wing structures by localized hedgehog expression in the anterior compartment of Drosophila melanogaster wing imaginal discs", <i>Gene</i> , 148 (2): 211-7 (1994)
	CT	Quinn, A. et al., "Delineation of two distinct deleted regions on chromosome 9 in human non-melanoma skin cancers", <i>Genes, Chromosomes &amp; Cancers</i> , 11:222-225 (1994)
	CU	Wicking, C. et al., "Fine genetic mapping of the gene for nevoid basal cell carcinoma syndrome", <i>Genomics</i> , 22: 505-511 (1994)
	CV	Quinn, A. et al., "Chromosome 9 allele loss occurs in both basal and squamous cell carcinomas of the skin", <i>J. Invest. Dermatology</i> , 102: 300-303 (1994)
	CW	Heemskerk, J. and DiNardo, S., "Drosophila hedgehog acts as a morphogen in cellular patterning", <i>Cell</i> , 76: 449-460 (1994)
	CX	Tabata, T. and Kornberg, T., "Hedgehog is a signaling protein with a key role in patterning Drosophila imaginal discs", <i>Cell</i> , 76: 89-102 (1994)
	CY	Roelink, H. et al., "Floor plate and motor neuron induction by <i>vhh-1</i> , a vertebrate homolog of hedgehog expressed by the notochord", <i>Cell</i> , 76: 761-775 (1994)
	CZ	Ma, C. et al., "The segment polarity gene hedgehog is required for progression of the morphogenic furrow in the developing Drosophila eye", <i>Cell</i> , 75 (5): 927-938 (1993)
	DA	Echelard, Y. et al., "Sonic hedgehog, a member of a family of putative signaling molecules, is implicated in the regulation of CNS polarity", <i>Cell</i> , 75: 1417-1430 (1993)
	DB	Riddle, R. et al., "Sonic hedgehog mediates the polarizing activity of the ZPA", <i>Cell</i> , 75: 1401-1416 (1993)
	DC	Krauss, S. et al., "A functionally conserved homolog of the Drosophila segment polarity gene <i>hh</i> is expressed in tissues with polarizing activity in zebrafish embryos", <i>Cell</i> , 75: 1431-1444 (1993)
	DD	Tabata, T. et al., "The Drosophila hedgehog gene is expressed specifically in posterior compartment cells and is a target of engrailed regulation", <i>Genes Dev.</i> , 6(12B): 2635-2645 (1992)
	DE	Chavrier, P. et al., "The complexity of the Rab and Rho GTP-binding protein subfamilies revealed by a PCR cloning approach", <i>Gene</i> , 112: 261-264 (1992)
	DF	Ma, C. et al., "Molecular cloning and characterization of rKIK <sub>10</sub> , a cDNA encoding T-kininogenase from rat submandibular gland and kidney", <i>Biochemistry</i> , 31: 10922-10928 (1992)
25	DG	Watson, J., Recombinant DNA, W.H. Freeman and Co., New York, 363, (1992)

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